

## ABSTRACT

In the present invention, the slave base station attains synchronization with the reference base station through messages transmitted from and  
5 received by a mobile station either in the soft handoff region between the reference base station and the slave base station or within a range which allows the mobile station to communicate with the slave base station. When the mobile station is not in communication with both the reference base station and the slave base station, then the round trip delay between the mobile station and  
10 the reference base station is measured by the reference base station. The reference base station communicates the PN code used by the mobile station over the reverse link to the slave base station. The slave base station acquires the signal from the mobile station and determines when the signal from the mobile station arrives. The slave base station then makes an estimate as to the  
15 length of the delay between transmission of a signal from the mobile station to the slave base station. Based upon these measurements and estimates, the slave base station determines the error which is present in the slave base station system time.